In addition, please add new claims 5-8.

Clean, Replacement Claims

1. A method for production of large quantities of an individual Class I MHC molecule, comprising the steps of:

A2

isolating MHC allele mRNA from a source and reverse transcribing the mRNA to form MHC allelic cDNA;

amplifying the MHC allelic cDNA by PCR using a pair of flanking oligonucleotide primers designed to amplify a segment of DNA that encodes an individual Class I MHC gene and truncates said Class I MHC gene by removal of those regions that encode transmembrane and cytoplasmic domains of said class I MHC molecules, thereby producing a PCR product that encodes an individual, soluble Class I MHC molecule;

cloning the PCR product into a mammalian expression vector to create a construct;

electroporating or transfecting the construct into a suitable host cell; and

inoculating a hollow fiber reactor unit with the host cell containing the construct such that large quantities of the soluble individual Class I MHC molecule are produced.

2. The method of claim 1 wherein fresh media, oxygen and glucose are fed into said hollow fiber bioreactor unit at a rate to maintain optimum cell growth and to maintain harvest rates at a desired level of soluble individual Class I MHC molecules.

A2 Cont'd

Newly Added Claims

5. The method of claim 1 further comprising the step of harvesting the soluble individual Class I MHC molecules from the hollow fiber bioreactor unit.

A3

6. The method of claim 1 wherein, in the step of electroporating or transfecting the construct into a host cell, the host cell lacks expression of Class I MHC molecules.

7. The method of claim 1 wherein, in the step of cloning the PCR product into a mammalian expression vector, the mammalian expression vector contains a promoter that facilitates expression of the PCR product.

8. The method of claim 1 wherein, in the step of isolating MHC allele mRNA from a source, the source is selected from the group consisting of a mammalian DNA specimen and an immortalized cell line.